

Border Crossing

Travelers should have identification and vehicle. A birth certificate may be needed for children. Special restrictions exist on crossing the border with pets, firearms, defensive and bear sprays, alcohol, firewood, and purchases.

Citizens of countries other than the United States or Canada may need a passport or visa. International travelers (not including U. S. and Canadian citizens) must have a current 194 form to cross into the United States. It is available at the Port of Entry for \$6.00 U.S. They will accept travellers checks or U.S. currency only, no credit cards.

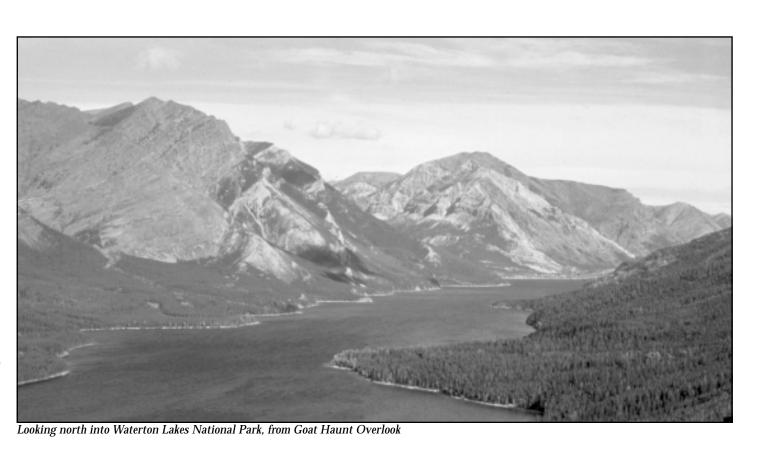
- For information on crossing the border from the United States into Canada call 800-320-0063.
- For information on crossing the border from Canada into the United States call 206-553-4676.

There are three border crossing stations adjacent to the park.

open 24 hours Piegan/Carway. . 7 a.m. to 11 p.m.

Chief Mountain 5/15 to 5/31 9/5 to 9/30

9:00 a.m. to 6:00 p.m. 7:00 a.m. to 10:00 p.m. 9:00 a.m. to 6:00 p.m.





2001 - Summer Guide to Waterton-Glacier International Peace Park

Welcome to the Peace Park

Congratulations! You've chosen an exceptional time to travel here. From Waterton-Glacier International Peace Park to Jasper National Park, we are celebrating the Year of the Great Bear. This is a special initiative to encourage regional and international recognition of the crucial need for co-operation to ensure that ecosystems remain intact and healthy enough to continue to support bears. Other objectives are to generate support for bear research and create education opportunities relating to bears. More than 5000 interpretive and educational opportunities have been organised to help visitors better understand the importance of the grizzly bear as an indicator of ecosystem health.

Within the protected lands of the Peace Park roam one of the densest concentrations of grizzly bears in North America. We also have a long history of working across boundaries to protect these important wild areas.

Right from the designation of Waterton Lakes and Glacier national parks, the

need to work together was obvious to staff. Kootenai Brown, Waterton's first settler and Forest Ranger, patrolled the Waterton valley with Glacier National Park Ranger Albert 'Death-on-the-Trail' Reynolds. In this tradition, staff from both parks still work together regularly on projects relating to research, resource management, visitor services and education. Ask us for a list of projects, and surprisingly, one is not available. Why not? Cooperation in the Peace Park is more than individual projects, it is a regular way of doing our work.

An important collaborative activity is wildlife management. Cooperative management is essential for the protection of all the park's inhabitants - but especially bears. For example, in any 24-hour period, a grizzly could regularly travel across boundaries between two countries, two provinces and a state.

The establishment of the Waterton-Glacier International Peace Park in 1932 was a great first step in working across those boundaries. Our challenge now is to extend our experience in cross-border collaboration to reach out to all of our other neighbors in order to more effectively protect this ecosystem. Success in maintaining ecosystems which are connected and healthy enough for bears means many other kinds of wild life will also survive and thrive.

For some aboriginal peoples, the bear is a symbol of renewal. Each fall, the bear disappears into the earth, the source of all life, and goes into a death-like sleep. The bear then emerges, often with cubs, as spring renewal brings warmer days and fresh green plants. Today, this intriguing perspective can be broadened to view the bear as a symbol of renewed commitment for us to work together to protect the grizzly bear, its habitat, and the diversity of species found there.



Waterton Lakes National Park aterton Park, Alberta T0K 2M0 403-859-2224

http://parkscanada.pch.gc.ca/waterton



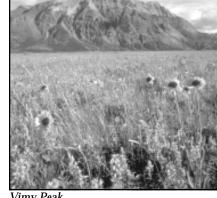
Glacier National Park

West Glacier, Montana 59936

http://www.nps.gov/glac/home.htm









National Parks Plus

Waterton Lakes and Glacier are neighbours with a difference. They have flowered from firm local roots into globally important places.

In 1931, the first "annual goodwill meeting" of Rotary Clubs from Alberta and Montana was held to discuss "a worldwide International Peace Movement." The idea of establishing an International Peace Park in the Waterton-Glacier area was unanimously endorsed. Following petitions from their respective Rotary clubs, local governments approached the two federal governments regarding the establishment of a peace park. All this hard work was rewarded when, in 1932, the Canadian Parliament and the United States Congress legislated the Waterton-Glacier **International Peace Park**, the first of its kind in the world.

Originally, the Peace Park commemo-ship between humans and the natural rated the peace and goodwill existing along the world's longest undefended border. Today, cooperation is reflected in wildlife and vegetation management, search and rescue programs, and joint interpretive programs, brochures, and exhibits.

Next came the parks' designations as **Biosphere Reserves** - Glacier in 1976 and Waterton in 1979. This program was started by the United Nations Educational. Scientific and Cultural Organization to represent the natural regions of the world. There are now more than 325 reserves worldwide.

How are biosphere reserves different from other protected areas? They form an international network. They focus on enriching understanding of the relation-

environment to support improved land management. They help foster awareness of resource management concerns and participate with area residents to develop local projects. They also provide a forum to exchange information, and encourage cooperative management practices between private landowners and government agencies.

As you travel through this distinctive landscape and enjoy its exceptional variety of life, you won't be surprised that it is also treasured worldwide. The Waterton-Glacier International Peace Park sturdy footwear. The trail is not difficult, became a World Heritage Site in 1995 for its scenic values, its significant climate, landforms and ecological processes, and also because of its enduring cultural importance.

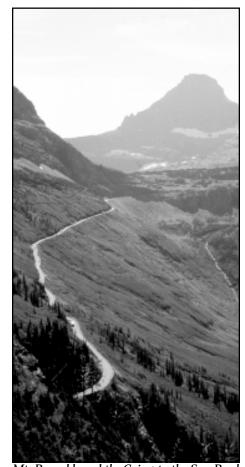
International Peace Park All-Day Hike

Experience the International Peace Park in a unique way! Join a free, full-day hike from Canada to the U.S., then cruise back on Waterton Lake, the deepest lake in the Canadian Rockies.

Led by a Canadian park interpreter and a U.S. park ranger, the hike is held Saturdays from June 30 to September 1. Participants meet at the Bertha Trailhead in Waterton Park at 10 a.m. Bring a lunch, water, raingear, jacket, hat, and wear but you will be hiking most of the day (14 km/8.5 mi). Pets are not permitted. We'll be back to Waterton about 6 p.m. Hikers must purchase a one-way boat cruise ticket for the return trip.

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Waterton Lakes National Park . 4 & 5 Safety ...



Now That I'm Here, What Do I Do?

A Drive Through

A summer drive across the Going-to-the-Sun Road will take about two to three hours driving time. Please take a few minutes to stop a time or two and enjoy one of the most magnificent mountain roads in the world. Wayside exhibits highlight the natural and cultural features seen along the route. Food service is available at Rising Sun, Lake McDonald Lodge, and Apgar.

Structural repairs are being made on the historic stone retaining walls along the Going-to-the-Sun Road. Park visitors may encounter a series of minor traffic delays totaling up to 30 minutes between West Glacier and St. Mary. Please allow additional driving time.

One Full Day

If you have a full day to spend, plan on exploring the Going-to-the-Sun Road in depth. Three nature trails along the route offer different experiences within the span of a few miles.

The Sun Point Nature Trail follows the windblown slopes above St. Mary Lake. Spectacular views of St. Mary Lake, and the Continental Divide in the distance, dominate this somewhat uncrowded part of the park. Baring Falls, at the end of the trail, is a highlight.

The Hidden Lake Nature Trail, at Logan Pass, leads visitors to an alpine wonderland. Snow lingers well into summer. Carpets of alpine flowers cover the mountainsides as soon as the snow melts. The view of Hidden Lake and the surrounding mountains is unforgetable. Visit Logan Pass late in the day or early in the morning for the best lighting conditions and to avoid the crowds. Watch for mountain goats along the trail.

The Trail of the Cedars, near Avalanche Picnic Area, is a different world from the other two trails. Towering cedar trees dwarf visitors and create a dark and moist environment filled with shadeloving ferns. This trail is one of two wheelchair-accessible trails in the park. This area can also be very crowded at mid-day. Late afternoon or early morning visits are recommended. From the halfway point of the trail a 2 mile spur leads to Avalanche Lake. This popular destination is a dramatic example of the power of glaciers to sculpt the landscape.

If you don't feel like hiking the nature trails, hop on a boat for a different perspective on the park. Guided boat cruises are offered on Lake McDonald and St. Mary Lake throughout the day. A mid-day cruise offers views unavailable from the park roads and can be a good way to avoid the daytime crowds.

To make a loop out of your trip across the park, follow Highway 2 back to your starting point. This route allows views into the remote southern half of Glacier. In early summer the Goat Lick, near Walton, is an excellent spot to view mountain goats.

Other One Day Trips **Many Glacier**

This area in the northeastern corner of the park is often refered to as the heart of Glacier. Boat rides, horseback riding, and great hiking are all found here. Three excellent all day hikes are the Iceberg Lake, Cracker Lake, and Grinnell Glacier trails. Roughly 10-12 miles each, these moderately strenuous hikes bring visitors to unmatched alpine scenery.

If you'd rather take two short hikes, take the morning boat trip on Swiftcurrent and Josephine Lakes and hike the easy, flat, one-mile trail that leads to turquise-colored Grinnell Lake. This combination of boat trip and easy hike is a great family trip. After your return, spend the afternoon strolling up the Swiftcurrent Valley to Red Rock Lake and Red Rock Falls. This easy trail has terrific views of Mt. Wilbur and Grinnell Point.

Two Medicine

Two Medicine is missed by most visitors. Those who find it are rewarded with some of the best scenic hiking to be found. Trails to Scenic Point, Cobalt Lake Aster Park, and Old Man Lake are all excellent. Guided boat trips on Two Medicine Lake make No Name Lake, Upper Two Medicine Lake, and Twin Falls easy family trips. Return by boat or hike back to the car along the lake.

Don't miss Running Eagle Falls. Site of the park's newest wheelchair-accessible trail, this area highlights Native American uses of plants, and the spiritual importance of this site to the neighboring Blackfeet Tribe. The Falls themselves are impressive. In the spring, water pours over a high cliff almost completely hiding a second lower waterfall. Later in the year only the lower falls are exposed.

The North Fork

The adventurous visitor, with a high clearence vehicle, might enjoy a trip to the northwest corner of Glacier. Forests of lodgepole and ponderosa pine give way to vistas created by recent forest fires in several locations. The regrowth in the different fire locations is a textbook example of forest succession. Wildflowers should be especially nice along parts of this road for the next few years. Allow all day to drive to and from Kintla and Bowman Lakes, along the rough dirt roads in the area. Be sure to pack a lunch.

Waterton Lakes National Park

Less than an hour north of St. Mary, you can spend the day exploring Glacier's sister park in Canada. In 1932 Glacier and Waterton Lakes National Parks were joined together as Waterton-Glacier International Peace Park. A boat cruise on Waterton Lake will take you deep into the wilds of the Peace Park. Spanning the international border, Waterton Lake is a perfect example of why our two countries cooperate together to preserve a shared resource. Other points of interest to explore include Cameron Lake, Red Rock Canyon, the Bison Paddock, and the magnificent Prince of Wales Hotel National Historic Site.

Visitor Information - Glacier

Entrance Fees - Waterton Lakes National Park has separate entrance fees.

Single verilcle rass	\$10.00 valid for 7 days.
Single Person Entry	\$5.00 By foot, bicycle, or motorcycle for 7 days.
Glacier National Park Pass	\$20.00 Valid for 1 year from month of purchase.
National Parks Pass	\$50.00 Valid for 1 year from month of purchase.
Golden Age, Golden Access,	and Golden Eagle Passports are also valid. Golden Eagle
,	in National Parks. The National Parks Pass may be upgrade. Special fees are charged for commercial tour vehicles.

Visitor Center Hours

St. Mary Visitor Cent	er
May 19 - June 16	8:00am to 5:00pm
June 17 - June 23	8:00am to 6:00pm
June 24 - Sept. 2	8:00am to 9:00pm
Sept. 3 - Oct. 21	8:00am to 5:00pm
Logan Page Vigitor C	ontor

June 24 - Sept. 3 ... Sept. 4 - Sept. 29...

Apgar Visitor Center

May 19 - June 16	8:00am to 4:30pr
June 17 - Sept. 8	8:00am to 8:00pr
Sept. 9 - Oct. 30	8:00am to 4:30pr
Many Glacier Range	r Station
May 26 - June 23	8:00am to 4:30pr

....... 9:00am to 7:00pm Sept. 4 - Sept. 21 8:00am to 4:30pm 10:00am to 4:30pm Headquarters Building - West Glacier

Many Glacier Ranger Station*

Two Medicine Ranger Station*

May - to Sept. 16

...... 8:00am to 4:30pm

... 8:00am to 4:30pm

Sept. 30 - Oct. 21 10:00am to 4:00pm Weekdays (closed holidays). 8:00am to 4:30pm

Hiking

Glacier has over 700 miles of maintained trails. Hikers need to assume individual responsibility for planning their trips and hiking safely. Read all the warnings and recommendations in this newspaper. Trail maps, trail guides, topographic maps, and field guides are available at park visitor centers. The Trail of the Cedars and Running Eagle Falls Nature Trails are wheelchair accessible. Ranger-led hikes are available throughout the park.

Backpacking

Permits, for backcountry camping, are required and are available at the locations listed below. There is a \$4.00 per person per night charge. Reservations are also available by mail, or at Apgar and St. Mary. There is a \$20.00 reservation fee. Permits are issued no more than 24 hours in advance. Visitors entering the backcountry at Goat Haunt or Belly River, may obtain their permit at the Waterton Visitor Reception Centre (credit cards only).

Apgar Backcountry Permit Center

May 1 - July 1	8:00am to 4:00pm
July 2 - Sept. 11	7:00am to 4:00pm
Sept.12 - to Oct. 31	8:00am to 4:00pm
St Mary Visitor Center*	

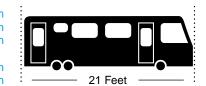
Polebridge Ranger Staton June - to Sept. 30 8:00am to 4:30pm May - to Sept. 11 9:00am to 5:00pm *Backcountry permits are not available between noon and 1:00pm at St. Mary, Many Glacier

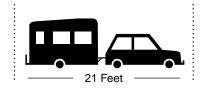
Driving the Going-to-the-Sun Road

mile road combines both history and unparalleled scenery. While portions of the road remain open year-round, the higher sections are not open until late May or June and close the Monday following the third Sunday in October, unless closed earlier by snowfall.

Vehicle Size Restrictions on the Going-to-the-Sun Road

To help reduce congestion along this narrow winding road, vehicle size restrictions are in effect. Vehicles, and vehicle combinations, longer than 21 feet (including bumpers) or wider than 8 feet (including mirrors), are prohibited between Avalanche Campground and the Sun Point parking area. Alternative transportation is available (see page 11).







Visiting Logan Pass

uently the parking lot at Logan Pass fills beyond capacity, forcing visitors to drive on without stopping. To avoid the crowds, plan on visiting Logan Pass early in the day or late in the afternoon. Tours, that stop at Logan Pass, are available and help provide valuable service to those with oversized vehicles. Rental cars are available in nearby communities

Bicycling

cycles are not allowed on foot trails. Observe all traffic regulations. Keep to the right side of the road and ride in single file. Pull over if four or more vehicles stack up behind you. During periods of low visibility a white light or reflector, visible from a distance of at least 500 feet to the front, and a red light or reflector, visible from at least 200 feet to the rear, are required. Be visible! Attach a bright flag on a pole and wear light-colored clothing. Watch for ng rocks, drainage grates, and ice on the road.

Bicycle Restrictions - June 15 through Labor Day

- From Apgar to Sprague Creek Campground bicycles are prohibited, both directions, between 11am and 4pm
- From Logan Creek to Logan Pass east-bound (uphill) bicycle traffic is prohibited between

Plan 45 minutes from Sprague Creek to Logan Creek and about three hours from Logan Creek to Logan Pass.

Lost and Found

Report or drop off lost and found items at any visitor center or ranger station, or contact Glacier National Park, Attn: Lost and Found, West Glacier, MT 59936 - 406-888-7825.

Clasiar National Park Sarviage and Escilition

Apgar	Lodging	Village Inn Motel Apgar Village Lodge	May 11 - Sept. 30 May 1 - Oct. 10	Call 406-756-2444 for advance reservations or 406-888-5632 for same day reservations Call 406-888-5484 for reservations
	Food Service	Eddie's Restaurant	June 7 - Sept. 24	Breakfast, lunch, and dinner
	Campstore/Gift Shops	Eddie's Campstore The Cedar Tree	May 17 - Sept.30 May 22 - Sept 23	
		Schoolhouse Gifts Montana House of Gifts	May 18 - Oct. 31 May 15 - Oct. 31	
	Boat Rentals	Glacier Park Boat Co.	May 26 - Sept. 3	Rowboats, canoes, kayaks, 6 & 15 hp motorboats, and fishing equipment rentals
Lake	Lodging	Lake McDonald Lodge	May 21 - Sept. 30	Call 406-756-2444 for advance reservations or 406-888-5431 for same day reservations
McDonald	Food Service	Cedar Tree Dining Room Charlie's Pizzaria Stockage Lounge	May 21 - Sept. 30 June 15 - Sept. 6 May 21 - Sept. 30	Lake McDonald Lodge - breakfast, lunch, and dinner Breakfast, lunch, and dinner Lake McDonald Lodge - 11:30am to midnight
	Campstore/Gift Shops	Lodge Campstore Lodge Giftshop	May 21 - Sept. 30 May 21 - Sept. 30	Groceries, fishing and camping supplies, firewood, and gifts Lake McDonald Lodge
	Scenic Boat Tours	Glacier Park Boat Co.	May 26 - Sept. 23	Narrated tours of Lake McDonald - 1 hour cruise at 10:00am, 1:30pm, 3:30pm, and 7:00pm - Ju and August 5:30pm cruise with beverage service - Call 406-888-5727 for details.
	Boat Rentals	Glacier Park Boat Co.	May 26 - Sept. 23	9:00am to 8:00pm - rowboats and 6 hp motorboats
	Horseback Rides	Lake McDonald Corral	May 26 - Sept. 9	Call 406-888-5121 for schedule and information
Many Glacier	Lodging	Many Glacier Hotel Swiftcurrent Motor Inn	June 1 - Sept. 16 June 7 - Sept. 3	Call 406-756-2444 for advance reservations or 406-732-4411 for same day reservations Call 406-756-2444 for advance reservations or 406-732-5531 for same day reservations
	Food Service	Ptarmigan Dining Room Swiss Lounge Italian Garden Ristorante	June 1 - Sept. 16 June 1 - Sept. 16 June 7 - Sept. 4	Many Glacier Hotel - breakfast, lunch, and dinner Many Glacier Hotel - 11:30am to midnight Breakfast, lunch, and dinner
	Campstore/Gift Shops	Swiftcurrent Campstore Hotel Gift Shop	June 7 - Sept. 16 June 1 - Sept. 17	Groceries, fishing and camping supplies, firewood, and gifts Many Glacier Hotel
	Scenic Boat Tours	Glacier Park Boat Co.	June 8 - Sept. 14	Narrated tours of Swiftcurrent and Josephine Lakes - 1 hour and 15 minute cruises at 9:00am, 11:00am, 2:00pm, and 4:00pm - July and August additional 3:00pm cruise - Guided walk to Grinnell Lake available on the 9:00am and 2:00pm cruise. Snow conditions permitting an 8:30ar cruise and guided hike to Grinnell Glacier is offered. Call 406-732-4480 for details.
	Boat Rentals	Glacier Park Boat Co.	June 8 - Sept. 14	8:30am to 8:00pm - rowboats, canoes, and kayaks
	Horseback Rides	Many Glacier Corral	June 2 - Sept. 3	Call 406-732-4203 for schedule and information
	Laundry and Showers	Swiftcurrent Motor Inn	June 7 - Sept. 16	Purchase tokens at the campstore or front desk
Rising	Lodging	Rising Sun Motor Inn	June 8 - Sept. 4	Call 406-756-2444 for advance reservations or 406-732-5523 for same day reservations
Sun	Food Service	Two Dog Flats Mesquite Grill	June 8 - Sept. 5	Breakfast, lunch, and dinner
	Campstore/Gift Shops	Rising Sun Motor Inn	June 8 - Sept. 5	Groceries, fishing and camping supplies, firewood, and gifts
	Scenic Boat Tours	Glacier Park Boat Co.	June 9 - Sept. 3	Narrated tours of St. Mary Lake - 1 1/2 hour cruises at 9:00am, 11:00am, 2:00pm, and 4:00pm 1 hour evening cruise at 6:30pm - Guided walk to St Mary Falls available on the 2:00pm and most 9:00am cruises - Call 406-732-4430 for details.
	Showers	Rising Sun Motor Inn	June 8 - Sept. 5	Purchase tokens at the campstore or front desk
Two	Campstore/Gift Shops	Two Medicie Campstore	May 24 - Sept.4	Gifts, self-serve convenience food, groceries, fishing tackle, camping supplies, and firewood
Medicine	Scenic Boat Tours	Glacier Park Boat Co.	June 6 - Sept. 3	Narrated tours of Two Medicine Lake - 45 minute cruises at 10:30am, 1:00pm, 3:00pm, and 5:00pm - Starting July 1 additional "Hiker's Express" at 9:00am - Guided walks to Twin Falls available on the 1:00pm and 3:00pm cruises - Call 406-226-4467 for details.
	Boat Rentals	Glacier Park Boat Co.	June 6 - Sept. 3	8:00am to 8:00pm - rowboats, canoes, kayaks and boats with electric motors
Other Services	Backcountry Lodging (only accessible by	Granite Park Chalet	July 1 - Sept. 11	Rustic accommodations include rooms, beds, and a common kitchen. Guests provide their own sleeping bag, water, food, and cooking utensils. Optional bed linen service is available.
	trail - reservations are required)	Sperry Chalet	July 10 - Sept. 8	Call 406-387-5555 or 800-521-RAFT for information and reservations www.glacierguides.com Sperry Chalet offers rustic overnight accommodations and full meal service, in a wilderness setting - Call 406-387-5654 for information and reservations - www.ptinet.net/sperrychalet
	Backpacking & Hiking Guide Service	Glacier Wilderness Guide	S	Guided day hikes and backpacking trips into Glacier's backcountry for one to seven days - Custom trips available - Camping equipment available for rent at their West Glacier office. Call 406-387-5555 or 800-521-RAFT for reservations and information - http://www.glacierguides.cor
	Bus Tours	Sun Tours	May 20 - Oct. 14	Interpretive tours highlighting Blackfeet culture and history relating to Glacier National Park's natural features. Tours begin from East Glacier, St. Mary, and Rising Sun. Call 1-800-786-9220 or 406-226-9220 for reservations and information.
		Glacier Park Inc.,	May 18 - Sept. 30	Tours between lodges as well as East Glacier, West Glacier, Waterton, and St. Mary. Call 406-756-2444 for reservations and schedule information.
	Shuttle Service	Glacier Park Inc.,	July 1 - Sept. 5	Daily service between West Glacier and St. Mary Visitor Center starting at 7:30pm Special hiker's shuttle from Many Glacier Hotel to Siyeh Bend, Logan Pass, and the Loop Call 406-756-2444 for schedule information.
	Cash Machines			Automatic Teller Machines (ATMs) are available at Apgar, Lake McDonald Lodge, Many Glacier, St. Mary, East Glacier, and West Glacier.
Worship Services	Christian Ministry Interdenominational Services	Headquarters Community Apgar Campground Amph Fish Creek Campground A Lake McDonald Lodge Au Avalanche Campground A Many Glacier Campground Many Glacier Hotel Rising Sun Campground Am St. Mary Campground Am Two Medicine Campgroun Glacier Park Lodge, East	itheater Amphitheater ditorium Imphitheater d Amphitheater Amphitheater phitheater d Amphitheater	Sundays - 10:30am Sundays - 8:30am & 7:00pm Sundays - 9:00am & 7:00pm Sundays - 9:00am & 7:00pm Sundays - 8:30am & 8:30pm Sundays - 8:30am & 7:00pm Sundays - 10:00am & 6:30pm Sundays - 8:30am & 7:00pm Sundays - 8:30am & 7:00pm Sundays - 8:30am & 7:00pm Sundays - 9:30am & 7:00pm Sundays - 9:00am

Saturdays - 7:00pm

Saturdays - 7:00pm

11

Sundays - 11am

Sundays - 9am

Sundays - 11am

Apgar Campground Amphitheater

Lake McDonald Lodge

Roman Catholic

Methodist

Baptist

Roman Catholic

Religious Services

Services

in Babb, MT

Glacier National Park Partners

Glacier Natural History Association

Bookstores in Glacier National Park visitor centers are operated by the Glacier Natural History Association (GNHA). This nonprofit organization works with the National Park Service to assist Glacier's educational and interpretive activities, cultural preservation, and special projects related to visitor services. A percentage of proceeds from book sales are donated to the park each year. GNHA has bookstores in nine locations: Apgar, Logan Pass, and St. Mary visitor centers; Polebridge, Two Medicine, Many Glacier and Goat Haunt ranger stations, the Apgar Backcountry Permit Center, and the West Glacier Depot.

GNHA members receive a 15% discount on items purchased at any of their stores, through their mail-order business, and at many other national park visitor centers. Catalogs and membership information are available at sales locations.

GNHA, Box 310, West Glacier, MT 59936, Phone 406-888-5756 http://www.glacierassociation.org gnha@glacierassociation.org

The Glacier Institute

Dedicated to the belief that education is the chief means of preserving respect for the past and shaping a vision for the future, The non-profit Glacier Institute presents seminars, workshops, collegecredit courses, school programs, and youth camps in Glacier and the surround ing ecosystem.

The Institute provides high quality, well-balanced educational experiences for children and adults, emphasizing a hands-on, field-oriented approach to learning.

Summer Field Seminars provide adults and children over 10 with in-depth educational experiences in fields as diverse as grizzly bear ecology, wildflower identification, watercolor painting, photography, and Blackfeet culture. For upcoming course information check the current edition of *Nature with a Naturalist* or ask for a course catalog at any park visitor center.

The Glacier Institute

P.O. Box 7457, Kalispell, MT 59904

http://www.digisys.net/glacinst

Phone 406-756-1211

Glacier National Park Associates

The Associates is an all-volunteer, nonprofit group that assists with trail work, historic log structure preservation, and other projects in the park. Volunteers complete at least one major project yearly, involving three to five days in the backcountry.

The Associates manage the Taggart Shubert Memorial Fund. Interest from the fund supports preservation and management of Glacier's backcountry.

Each summer the associates fund a

backcountry ranger intern to help with backcountry management. Contributions from backcountry users make up the "Associates Backcountry Preservation Fund," used to purchase supplies and materials ranging from bear-proof boxes to computer equipment. Donations and volunteers are welcome.

Glacier National Park Associates
Box 91, Kalispell, MT 59903
Phone 406-387-4299
http://www.nps.gov/glac/partners/

gnpa.htm

suejim@bigsky.net

The Glacier Fund

The Glacier Fund is the new nonprofit fundraising partner for Glacier National Park. Working in concert with the National Park Foundation, the official nonprofit partner of the National Park Service, The Glacier Fund assists in raising funds for environmental education, historic building restoration, wildlife research, backcountry trails and facilities, and the historic fleet of red buses. Through generation of funds from the private sector, The Glacier Fund works to preserve Glacier's world-renowned natural and cultural history for the use and enjoyment of future generations.

Your tax-deductible donations help meet unfunded needs and support many park projects. Ask for a donation envelope at a visitor center. For more information contact:

The Glacier Fund c/o Glacier National Park West Glacier, MT, 59936 Phone 406-888-7910 http://www.nps.gov/glac/partners/ glacfund.htm

Waterton Natural History Association

The Waterton Natural History Association (WNHA) is a nonprofit organization devoted to increasing the public's understanding, appreciation, and appropriate use of Waterton Lakes National Park. To fulfill this mandate, the WNHA operates the Waterton Heritage Centre and offers a varied program of natural history activities for both young people and adults.

The Heritage Centre, located on the main street of the townsite, features displays of the park's natural and cultural history, an art gallery, and a well-stocked bookstore and gift shop. Books are also available at the Park's Visitor Reception Centre.

The core of the WNHA summer programs are nine 1-day or 2-day courses offered in conjunction with the University

of Lethbridge. Topics include wildflowers, birds, geology, ecology, bears, large predators, rivers and riparian landscapes, and forests and fires. All courses are presented by recognized experts and are based on field trips in the Waterton area. Registration is limited and is first-come, first-served.

Children ages 7 through 13 can explore the park under the guidance of trained leaders, weekday afternoons in July and August. Games, crafts, short hikes, videos and other activities are featured, at a minimal cost.

Natural history slide talks are offered on Saturday evenings during July and August in the Falls Theatre. The program includes presentations on bears, forest fires, and a hike across Alberta. Watch for announcements of dates, times and topics. Other special events include the annual Take-A-Hike program on July 21st, and the Heritage Ball, scheduled this year for September 15th.

Park visitors are encouraged to become members of the WNHA. Annual memberships are available at a nominal fee. Members receive a discount on education programs, books, and other retail purchases.

For information on natural history programs and special events contact:
The Waterton Natural
History Association
Box 145, Waterton Park
Alberta, Canada T0K 2M0
Phone: 403-859-2624
email: wnha@telusplanet.net



Waterton Lakes National Park

The Waterton-Glacier Guide is made possible through the generous financial support of the Glacier Natural History Association and the Waterton Natural History Association.



Chief Mountain

Explore the Area's Cultural Heritage

This area holds special appeal for visitors interested in the culture of indigenous peoples. Waterton-Glacier International Peace Park lies just west of the Blood Reserve in Canada and borders the Blackfeet Reservation in the United States. People of the Confederated Salish and Kootenai Tribes, southwest of the park, also have a close association with the park. While visiting the park, take the time to learn about our neighbors.

 Nearby in Browning, Montana, the Museum of the Plains Indian features fascinating exhibits and Native American handcrafts as sales items. The museum is open seven days a week, from June through September. Also in Browning, North American Indian Days, July 5 through 8, is a large celebration of Native American culture that includes a parade, traditional dress, and dancing. Visitors are always welcome.

Northeast of Waterton, early plains culture is dramatically displayed at the Head-Smashed-In Buffalo Jump World Heritage Site. This site is open seven days a week in summer and is well worth a visit. Phone 403-553-2731 for further information.

• The People's Center and Native Ed-Ventures, for the preservation of Kootenai and Salish Culture, are located near Pablo, Montana. The Center provides educational opportunities, fullday and half-day interpretive tours of the Flathead Indian Reservation, a museum collection, and gift shop. Open daily throughout the summer. Call 1-800-883-5344 for further information.

The Quiet Neighbor

Visitors may not be aware of the Peace Park's neighbor to the northwest, the Akamina-Kishinena Provincial Park. The park is located in British Columbia on Waterton's western boundary and Glacier's northern boundary. Its main access point is through Waterton via the Akamina Pass trail (which runs off the Akamina Parkway near Cameron Lake.)

The area's attractions are its lakes, geology, and winter backcountry skiing. Hiking varies from short excursions for plant and wildlife viewing to rugged ridge treks. Camping is available at the Akamina Creek campground for \$4/person. Horse users are reminded to obtain a written permit from B.C. Parks prior to entering the park. Anglers require a B.C. fishing license, available from the Waterton Visitor Reception Centre.

Ongoing cooperative relations between Waterton-Glacier and the Akamina-Kishinena include bear, fire, and backcountry management. Because we are all part of the Crown of the Continent ecosystem, we expect further joint initiatives will develop over coming years.

For more information about the Akamina-Kishinena Provincial Park, please contact:

B.C. Parks
Box 118, Wasa
B.C. V0B 2K0.
250-422-4200

Glacier National Park



View north from Logan Pass

Where Are the Red Touring Buses?

The historic, 65 plus-year-old red ("jammer") touring buses will not be seen on park roadways again this season. Jammers acquired their nickname from the way driver's jammed the gears while maneuvering the scenic mountainous roads of Glacier. The fleet of 33 red buses, which are privately owned were temporarily removed from service in August 1999 after inspections detected structural fatigue and other serious safety concerns. The National Park Service (NPS) agreed with the park concessioner, Glacier Park Inc., (GPI) that the buses needed further evaluation and rehabilitation before they are returned to service; however the NPS and GPI are both committed to seeing this heritage experience returned for future park visitors to enjoy.

So, the icons of Glacier National Park's roadways remain temporarily out of service. This fleet of old touring buses was very likely the oldest continually operating fleet of such vehicles in the world.



The rehabilitation of Bus #98 (above) was

accomplished, over the past year, with the generous support of the Ford Motor Company.

Efforts are underway to rehabilitate the fleet of 1930's vehicles. The goal is to refurbish the buses with new chassis, alternative fuel engines, and refurbished bodies and interiors. This effort will serve as a prototype for rehabilitating the rest of the fleet, using privately donated funds. We hope to see bus #98 return to Glacier this summer.

While the red buses are temporarily out of service, tour services are still provided in the park by Sun Tours and GPI (see page 11). If you would like to donate to the effort to bring back the "jammers" please contact The Glacier Fund (see page 10).

Your Fees Improve Glacier

Managing public lands is a major financial investment. While most of the investment is paid for from the general tax base, park visitors derive a greater benefit from, and place a greater burden on, national parks than the general public. In 1996, Congress directed the U. S. Department of the Interior to implement the Recreation Fee Demonstration Program to help address pressing park needs. Visitors now pay an increased share of costs through entrance and recreational fees, 80% of which remain in the park. The other 20% is returned to Washington and distributed to parks who can not or do not collect fees.

In Glacier, fees have helped to provide universal access to Oberlin Bend Overlook and Park headquarters. Visitor center improvements, wayside exhibits, wildlife monitoring, revegetation projects, bridge repairs, road maintenance, historic preservation programs, and campground improvements are all benefits of this program. Look for the large yellow diamond shaped signs throughout the park that identify Fee Demo Projects.

The future of America's public lands rest with all Americans. The actions we take today reflect the price we are willing to pay to pass these lands, protected and in better health, on to future generations.

Glacier's Weather

The west side of the park generally receives the most rainfall. Daytime temperatures can exceed 90° F. It is frequently 10 to 15 degrees cooler at higher elevations. Sunny days often predominate on the east side of the park; however, strong winds frequently occur. Overnight lows in the park can drop to near 20° F and snow can fall anytime.

Prepare for varied of conditions. You may start in a T-shirt and shorts, and need a parka by evening. Dress in layers and always bring raingear.

Month	Ave. Rainfall	Ave. High	Ave. Low
May	2.97"	65 °F	37 °F
June	3.35"	71 °F	45 °F
July	1.95"	78 °F	49 °F
August	1.45"	78 °F	48 °F
Sept.	1.83"	63 °F	38 °F

Ten year averages from West Glacier

National parks have experienced an increase in crime in recent years. When you leave your vehicle or campsite, secure all valuables out of view. If you observe suspicious activity, contact a ranger as soon as possible. Descriptions of individuals, vehicles, and license numbers are extremely helpful.

Campgrounds

Campgrounds, except Fish Creek and St. Mary (see chart), are available on a "first-come, first-served" basis. Regulations are posted at each campground. Utility hookups are not provided. Ten group sites at Apgar, and one each at Many Glacier, and Two Medicine campgrounds accommodate partie of 9-24 people. The fee is \$3.00 per person, per night. At St. Mary, one group site is available and may be reserved ahead of time

Campfires

Campfires
Campfires are permitted only in designated campgrounds and picnic areas where grates are provided. Collecting firewood is prohibited except along the Inside North Fork Road from one mile north of Fish Creek Campground to Kintla Lake, along the Bowman Lake Road, and around backcountry campgrounds that permit fires.

Hiker-Biker Campsites

Campsites are available for bicyclists and hikers (see chart). These shared sites hold up to eight people. The fee is \$3.00 per person. Sites at Fish Creek and St. Mary may be reserved and have an additional reservation fee.

Pets

Pets are permitted in campgrounds, along roads, and in parking areas, but they must be on a leash of 6 feet or less, caged, or in a vehicle at all times. They are not allowed in restaurants, stores, or visitor centers. Pet owners are required to pick up after their pets and dispose of waste properly. Pets may not be left unattended and are not permitted on trails, along lake shores, or in the backcountry.

Campground	Fee	Sites	Flush Toilets	Disposal Station	Hiker- Biker	Maximum vehicle size and additional information
Apgar May 4 - Oct. 22	\$14.00	192	~	~	~	25 sites will fit a maximum vehicle, or vehicle combination, length of 40'; primitive camping after listed dates
Avalanche June 15 - Sept. 4	\$14.00	87	~	•	~	50 sites will fit a maximum vehicle, or vehicle combination, length of 26'
Bowman Lake May 18 - Sept.15	\$12.00	48				Campground accessible by dirt road, large units not recommended, primitive camping after the listed dates
Cut Bank June 2 - Sept. 24	\$12.00	19				Campground accessible by dirt road, large units not recommended
Fish Creek June 1 - Sept. 4	\$17.00*	180	~	~	~	80 sites will fit a maximum vehicle, or vehicle combination length of 27', 18 of those will accommodate up to 35'
Kintla Lake May 18 - Sept.15	\$12.00	13				Campground accessible by dirt road, large units not recommended, primitive camping after the listed dates
Logging Creek July 1 - Sept. 4	\$12.00	8				Campground accessible by dirt road, large units not recommended, primitive camping after the listed dates
Many Glacier May 25 - Sept. 24	\$14.00	110	~	~	~	13 sites will fit a maximum vehicle, or vehicle combination, length of 35'; primitive camping after listed dates
Quartz Creek July 1 - Sept. 4	\$12.00	7				Campground accessible by dirt road, large units not recommended, primitive camping after the listed dates
Rising Sun May 25 - Sept.13	\$14.00	83	~	~	~	No towed units - 10 sites large enough to accommodate a maximum vehicle length of 25'
Sprague Creek May 18 - Sept. 24	\$14.00	25	~		~	No towed units - some sites large enough to accommodate a maximum vehicle length of 21'
St. Mary May 25 - Sept. 24	\$17.00*	148	~	•	~	25 sites will fit a maximum vehicle, or vehicle combination, length of 35'; primitive camping after listed dates
Two Medicine May 25 - Sept. 24	\$14.00	99	~	✓	~	13 sites will fit a maximum vehicle, or vehicle combination, length of 32'; primitive camping after listed dates

* Fish Creek and St. Mary Campgrounds are reservable through the National Park Service Reservation System. Call 1-800-365-CAMP or visit http://reservations.nps.gov for reservations information.

Camping is permitted only in designated campgrounds.

Now, many national parks are islands of nature in a sea of civilization. They are the places we visit to connect with nature. With experience, we have also learned that the ecosystems protected in our national parks are closely interconnected with their surrounding landscapes. In Waterton's case, we are fortunate to have surrounding jurisdictions and ranchers that have taken good care of surrounding lands.

Recently, a trend to subdivide ranch lands into smaller residential acreages has begun. This has serious implications for the park. Why?

To answer that, let's head to a tropical island! Scientific research indicates that the number of species living on an island is a balance between the rate its species go extinct vs. the rate new ones arrive. Whether this number is high or low depends on the island's size and its distance from sources of migrants.

Small islands generally experience more extinctions than large islands.

Tunnel on the way to Crypt Lake

What Lies Beneath?

All life, including humans, is dependent

evaluate how our aquatic ecosystems are

coping with increasing disturbances, an

parks in Alberta and British Columbia. A

point of reference against which other or

future research and monitoring studies

can be compared. Benchmarks are key

elements needed to monitor in what

ways, and how quickly, our aquatic

ecosystems may be changing. They

provide us with crucial information

the water in our national parks stays

identified Lost Lake, Blakiston and

Bauerman Creeks, North Fork Belly

needed to ensure life beneath and beside

healthy. Waterton's Management Plan has

River, and Maskinonge wetland as areas

for designation as aquatic benchmarks.

on the availability of clean water. To

aquatic benchmark network is being

established in the mountain national

'benchmark area' serves as a starting

Waterton Watch

Islands that are further from the mainland (or other islands) receive fewer migrants because it is difficult for many plants and animals to cross a large barrier of water. Also, given two islands the same distance from the mainland, migrants will have more difficulty finding a small island than a large one. So what does all this mean? It means we can expect to find more species on large islands that are close to each other and fewer species on small islands that are far apart.

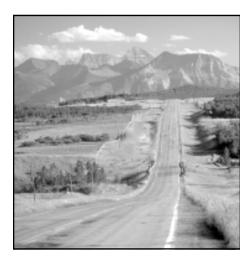
Waterton Lakes is a small, but very diverse national park. At first glance, it could be compared to a small island. In fact, because lands surrounding it are either natural areas or are ranch lands with large areas of relatively wild space, Waterton is actually part of a large island which supports a wide variety of wildlife Current land uses adjacent to the park allow many species to live and travel freely here.

This could change as new land uses are introduced. Depending on their type and intensity, some developments replace wildlife habitat and/or create barriers to wildlife movement. Very abrupt land use changes against the park boundary are more significant than those which are further away or spread out.

Residential acreages created by subdividing ranch lands near the park are a good example. As land is carved into smaller pieces, its ability to support wildlife is significantly reduced. More homes generally create the need for more roads and other infrastructure, more vehicles, more use of water, and more people in the area. Experience elsewhere indicates that new development also leads to further residential and commercial developments. Over time, Waterton could become a 'small island', separated by a wide 'sea' of development.

Many animals, particularly large carnivores like bears and wolverines, require ranges far greater than our parks can provide. These animals must travel outside park boundaries, yet buildings, roads and related developments create barriers, or bring wildlife into conflict with people. The result - animals are relocated or killed and their numbers reduce. As the population and overall number of species diminishes, the flexibility of the park to withstand disturbances like disease, wildfire or insect infestation is reduced. It's not unlike trying to fight the flu when you are already tired and stressed.

Careful planning in neighbouring



jurisdictions can allow new development while maintaining the ability of the land to sustain wildlife, as well as people. 'Green' corridors between natural areas can allow wildlife to move through the 'sea' to find or roam between 'islands' of wildlife habitat. Higher intensity uses can be concentrated near existing hamlets or towns, creating islands of development in a relatively unfragmented landscape.

In the future, it is unlikely this landscape will look exactly as it does now. Yet, with careful stewardship, it can continue to support a rich variety of inhabitants.

Bear With Us

bears. Park managers believe this will significantly reduce the number of black bears use the area as an important of the conflicts between bears and humans in this area suggests that many campgrounds. Removing overnight use trail closures. This would increase opportunities for people to enjoy the Crypt Lake area during the day.

This change will also benefit wildlife. Bears, deer and other animals will be free to forage with minimum disturbance during evenings, through the night and early in the morning when they are normally most active. Day hikers will travel through wildlife habitat during times when animals are least likely to be

valley in this way, those who enjoy wilderness recreation can help contribute to the park's ecological integrity.

The Crypt Lake Trail is one of the most popular in Waterton Lakes National Park. An average of 70 persons hike on it daily throughout the summer season. While wilderness camping was a popular activity over the years at both the Crypt Landing and Crypt Lake campgrounds, recent occupancy rates averaged only 14% and 20%. The Wishbone campground, on Middle Waterton Lake, had an even lower average occupancy rate of 3%. Fortunately, occupancy rates in our other wilderness campgrounds indicate that campers who would have requested these sites can be easily accommodated at other sites in the park.

Since the docks at Wishbone were no longer needed to support overnight camping, the park made plans to re-use them at Boundary Bay and Crypt landing this summer. Docks are normally only provided in boat launching areas and to service wilderness campsites or trailheads. Traditional use of the area by boaters and canoeists could continue using the natural beach area.

While the public has been frequently consulted over the last two years regarding removal of the campgrounds, this consultation was not explicit in terms of the potential removal of the Wishbone dock. For this reason, before removing the cribbing for the docks, the Park will consult with the community and park users this summer. We will determine whether the permanent removal of the docks creates any concerns for park visitors, and if so, how can those concerns could be addressed. Based on the response received, the Park will make a final decision regarding the docks in the fall of 2001.

Our surveys of Waterton's wilderness users indicate clear support of management decisions that enhance protection of wildlife in National Parks, even when it means giving up or redirecting access and use. Public feedback regarding these specific changes in the Crypt area has also been supportive. It is gratifying when an important park issue can be resolved in a way which benefits both people and wildlife.

This summer, the Wishbone, Crypt

Landing and Crypt Lake backcountry campgrounds will be permanently closed in order to improve safety for people and conflicts between bears and people in the area, many of which have resulted in extended trail closures. Both grizzly and feeding area and travel corridor. Analysis of the problems arise from bears encountering people and their food in overnight should reduce these conflicts and reduce

seeking food. By choosing to share the

Waterton Lakes National Park has been working with its community to reduce the amount of garbage that has to be removed from the park to a landfill. This is no small problem, particularly when you consider that more than 400,000 guests visit us annually. About 380 tonnes (835 tons) of waste are taken to the landfill each year; about 45 dump truck loads! Without recycling, this amount would have been higher.

Watching Your Waste Line Getting Our 'Act' Together

Currently, around 30 tonnes (66 tons) (3 ½ truck loads) of cardboard, glass, metal cans, plastic milk jugs, other plastic containers, mixed paper and newspaper are collected in the recycling trailer and bins. A staggering 53,276 beverage containers (pop, juice, beer and spirits) were recycled in the year 2000 alone. The proceeds from the return of these containers contributed toward the cost of the rest of the recycling program.

Help out by using the green recycling trailer and cardboard bin near the marina in the townsite and the blue bins for cans and bottles throughout the park.

In February 2001, the new Canada National Parks Act was proclaimed in Parliament, replacing the old National Parks Act. Because the word "Canada" has been added to the title of the Act, national parks will now have the words "of Canada" added after their name. Thus, we are now officially designated Waterton Lakes National Park of Canada. Amongst other provisions, the new Act:

clause, and clearly defines what is meant by ecological integrity; • provides streamlined procedures for the establishment of new parks and

strengthens the ecological integrity

- enlargement of existing parks; enacts seven new national parks and one national park reserve;
- · fixes the boundaries of national park communities and restricts commercial development in those communities;
- increases penalties for offenses like poaching and trafficking in wildlife, plants and natural objects;
- adds new penalties for pollution and the misuse of public lands.

Ecological integrity is a condition that is characteristic of its natural region and likely to persist, including abiotic components and the composition and abundance of native species and biological communities, rates of change and supporting processes.

Abiotic components are nonliving features, such as climate and rocks. Examples of supporting processes are fire and flood.

If You Encounter a Bear

A commonly asked question is "What do I do if I run into a bear?" There is no easy answer. Like people, bears react differently to each situation. The best thing you can do is to make sure you have read all the suggestions for hiking and camping in bear country and follow them. Avoid encounters by being alert and making noise.

Bears may appear tolerant of people and then attack without warning. A bear's body language can help determine its mood. In general, bears show agitation by swaying their heads, huffing, and clacking their teeth. Lowered head and laid-back ears also indicate aggression. Bears may stand on their hind legs or approach to get a better view, but these actions are not necessarily signs of aggression. The bear may not have identified you as a person and is unable to smell or hear you from a distance.

Bear Attacks

Safety

The vast majority of bear attacks have occured because people have surprised a bear. In this type of situation the bear may attack as a defensive maneuver.

In rare cases bears may attack at night or after stalking people. This kind of attack is rare. It can be very serious because it often means the bear is looking for food and preying on you.

If you are attacked at night or if you feel you have been stalked and attacked as prey, try to escape. If you cannot escape, or if the bear follows, use pepper spray, or shout and try to intimidate the bear with a branch or rock. Do whatever it takes to let the bear know you are not easy prey.

This aerosol pepper derivative triggers

bears. It is a non-toxic and non-lethal

temporarily incapacitating discomfort in

There have been cases where pepper

attacking bears and accounts where it has

distance, wind, rainy weather, temperature

Factors influencing effectiveness include

If you decide to carry spray, use it only

behavior justifies its use. Pepper spray is

intended to be sprayed into the face of an

spray apparently repelled aggressive or

not worked as well as expected.

extremes, and product shelf life.

in situations where aggressive bear

Pepper Spray

means of deterring bears.

If you surprise a bear, here are a few guidelines to follow that may help:

- Talk quietly or not at all; the time to make loud noise is before you encounter a bear. Try to detour around the bear if possible.
- Do not run! Back away slowly, but stop if it seems to agitate the bear.
- · Assume a nonthreatening posture. Turn sideways, or bend at the knees to appear smaller.
- Use peripheral vision. Bears may interpret
- direct eye contact as threatening. · Drop something (not food) to distract the bear. Keep your pack on for
- protection in case of an attack. · If a bear attacks and you have pepper spray, use it!
- · If the bear makes contact, protect your chest and abdomen by falling to the ground on your stomach, or assuming a fetal position to reduce the severity of an attack. Cover the back of your neck with your hands. Do not move until you are certain the bear has left.

oncoming bear. It is not intended to act as

Under no circumstances should pepper

Be aware that you may not be able to

cross the U.S./Canada border with some

Customs will allow the importations of

Specifications state that the bear spray

USEPA-approved bear spray into Canada.

brands of pepper spray. Canadian

must have USEPA on the label.

spray create a false sense of security or

serve as a substitute for standard safety

a repellant. Do not spray gear or around

camp with pepper spray.

precautions in bear country.



Camping & Bears

Odors attract bears. Our campground and developed areas can remain "unattractive" to bears if each visitor manages food and trash properly. Regulations require that all edibles (including pet food), food containers (empty or not), and cookware (clean or not) be stored in a hard-sided vehicle or food locker when not in use, day or night.

- Keep a clean camp! Improperly stored or unattended food will likely result in confiscation of items and/or issuance of a Violation Notice.
- · Inspect campsites for bear sign and for careless campers nearby. Notify a ranger or warden of potential prob-
- · Place all trash in bearproof containers.
- Pets, especially dogs, must be kept under physical restraint.
- Report all bear sightings to the nearest ranger or warden immediately.

A fed bear is a dead bear! Bears learn quickly how to obtain human food once they have tasted it. Bears that obtain human food may have to be destroyed.

Don't leave any food, packs, or garbage unattended, even for a few minutes.

Ticks are most active in spring and early summer. Most bites don't result in illness, but several serious diseases, like Rocky Mountain Spotted Fever, can be transn Completely remove attached ticks and disinfect the site. If rashes or lesions form around the bite, or if unexplained symptoms occur, consult a physician.

Rodents and Hantavirus

Deer mice and other rodents are possible carriers of Hantavirus, an acute respiratory disease affecting the lungs. The most likely source of infection is from rodent urine and droppings inhaled as aerosols or dust.

Avoid areas where rodents may congregate such as burrows or nests, old uncleaned cabins, or other rodent-infested structures. Try to camp away from possible rodent burrows or shelters (garbage dumps and woodpiles), and keep food in rodentproof containers. To prevent the spread of dust in the air, spray affected areas with a disinfectant before cleaning.

Initial symptoms are almost identical to the onset of flu. If you have potentially been exposed and exhibit flu-like symptoms, you should seek medical care immediately.

Watch Your Step Mountainous Terrain

Many accidents occur when people fall after stepping off trails or roadsides, or by venturing onto very steep slopes. Stay on designated trails and don't go beyond protective fencing or guard rails. Supervise children closely in such areas. At upper elevations, trails should be followed carefully, noting directions given by trail

Snow and Ice

lds and glaciers present serious hazards. Snowbridges may conceal deep crevasses on glaciers or large hidden cavities under snowfields, and collapse under the weight of an unsuspecting hiker. Don't slide on snowbanks. People often lose control and slide into rocks or trees. Exercise caution around any snowfield in the parks.



Hiking Cathew Pass



Use caution crossing any snowfield

Waterton River bridge near Goat Haunt

Medical Services

while visiting the parks, please contact a warden or ranger for information and assistance. To ensure adequate staffing on your arrival at a hospital, call before setting

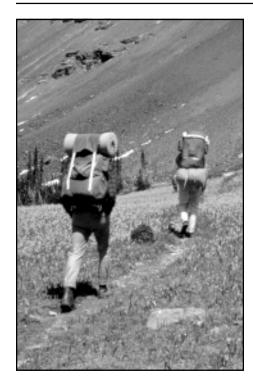
Montana Hospitals & Clinics

- 406-873-2251
- Kalispell Regional Hospital 310 Sunny View Lane, Kalispell, MT 406-752-5111
- North Valley Hospital Highway 93 South, Whitefish, MT
- 406-862-2501 **Teton Medical Center** 915 4 NW, Choteau, MT
- 406-466-5763 West Glacier Urgent Care & Minor Illness Clinic West Glacier Fire Department West Glacier, MT 406-888-9005

Alberta Hospitals

Cardston, Alberta 403-653-4411

Pincher Creek Municipal Hospital Pincher Creek, Alberta 403-627-3333



Waterton-Glacier provides a wonderful opportunity to view animals in their natural setting. Along with this opportunity comes a special obligation for park visitors. With just a little planning and forethought, visitors can help ensure the survival of a protected threatened species.

Always enjoy wildlife from the safety of your car or from a safe distance. Feeding, harassing, or molesting wildlife is strictly prohibited and subject to fine.

Bears, mountain lions, goats, deer, or any other species of wildlife can present a real and painful threat, especially females with young.

Hiking in Bear Country

Don't Surprise Bears!

Bears will usually move out of the way if they hear people approaching, so make noise. Most bells are not enough. Calling out and clapping hands loudly at regular intervals are better ways to make your presence known. Hiking quietly endangers you, the bear, and other hikers.

When bears charge hikers, the trail may be temporarily closed for public safety. While the trail remains closed, other visitors miss the opportunity to enjoy it. A bear constantly surprised by people may become habituated to close human contact and less likely to avoid people. This sets up a dangerous situation for both visitors and bears.

Don't Make Assumptions!

You can't predict when and where bears might be encountered along a trail. People often assume they don't have to make noise while hiking on a well-used trail. Some of the most frequently used trails in the park are surrounded by excellent bear habitat. People have been charged and injured by bears fleeing from silent hikers who unwittingly surprised them along the trail. Even if other hikers haven't seen bears along a trail section recently, don't assume they aren't there.

Don't assume a bear's hearing is any better than your own. Some trail conditions make it hard for bears to see, hear, or smell approaching hikers. Be particularly careful by streams, against the wind, or in dense vegetation. A blind corner or a rise in the trail also requires special attention.

Learn About Bears

Park staff can help you identify signs of bear activity like tracks, torn-up logs, trampled vegetation, droppings, and overturned rocks. Bears spend a lot of time eating, so avoid hiking in obvious feeding areas like berry patches, cow parsnip thickets, or fields of glacier lilies.

Don't Approach Bears!

Never intentionally get close to a bear. Individual bears have their own personal space requirements which vary depending on their mood. Each will react differently and its behavior can't be predicted. All bears are dangerous and should be respected equally.

Keep children close by. Hike in groups and avoid hiking early in the morning, late in the day, or after dark.





What Kind of Bear Is That?

Griz	zly	Bea	٢

Range from blond to nearly Color black, sometimes have silvertipped guard hairs that give

Grizzly bears often have a

them a "grizzled" appearance.

dished-in face and a large hump of heavy muscle above the shoulders. Their claws are around four inches (10 cm) long.



Black Bear

Color is not a reliable indicator of species. Contrary to their name black bears also come in brown, cinnamon, and blond.

Facial profile is straighter from tip of nose to ears, without the dished-in look. Lack the hump of a grizzly and have shorter claws, generally around one and a half inches (4 cm) long.



Roadside Bears

It's exciting to see bears up close but we must act responsibly to keep them wild and alive. Do not approach bears for pictures or entice them to come closer. Never feed bears! Bears that receive human food become problem bears and may have to be destroyed.

If you see a bear from your car, stay inside. Leaving your vehicle endangers your safety and the bear's, and exposes you to traffic hazards. If traffic is heavy, keep your eyes on the road and don't stop. Accept the fact that, while your passengers may get a quick look, you may not. If traffic is light, slow down and pull over when it is safe to do so. Don't stop in the middle of the road, or on a hill or curve where other drivers may not see you in time to avoid a collision. Exercising some common sense during the excitement of sighting a bear is important to you, the bear, and other visitors.

For Your Safety

Rivers and Lakes

Use extreme caution near water. Swift, cold glacial streams and rivers, moss-covered rocks, and slippery logs all present dangers. Children, photographers, boaters, rafters, swimmers, and fishermen have fallen victim to these rapid, frigid streams and deep

Avoid wading in or fording swift streams. Never walk, play, or climb on slippery rocks When boating, don't stand up or lean over the side, and always wear a lifejacket.

Drowning

Sudden immersion in cold water (below 80° F, 27° C) may trigger the "mammalian diving reflex." This reflex restricts blood from outlying areas of the body and routes it to vital organs like the heart, lungs, and brain. The colder the water, the younger the victim, and the quicker the rescue, the better the chance for survival. Some cold-water drowning victims have survived with no brain damage after being submerged for

Revival Procedure:

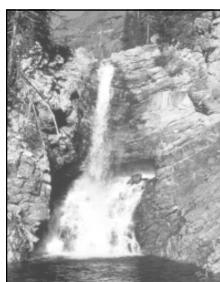
- Retrieve victim from water without endangering yourself. Prevent further body heat loss, but do not
- Near-drowning victims may look dead.
- Don't let this stop you from trying to revive them! If there is no pulse, start CPR regardless of the duration of submersion
- Delayed symptoms may occur within 24 hours. Victims must be evaluated by a physician.

Giardia



Running Eagle Falls

diasis can be caused by a parasite (Giardia lamblia) found in park lakes and streams, Persistent, severe diarrhea. abdominal cramps, and nausea are the main symptoms of this disease. If you experience any symptoms, contact a physician. When hiking, carry water from one of the park's treated water systems. If you plan to camp in the backcountry, follow The easiest effective water treatments are either to bring water to a boil or to use an



approved filter.

Hypothermia

collapse and reduced mental capacity resulting from the chilling of the inner core of the human body," can occur even at temperatures above freezing. Temperatures can drop rapidly. Sudden mountain storms can turn a pleasant hike into a drenching, bitterly cold and life-threatening experience. People in poor physical shape or who are Prevention

- Avoid hypothermia by using waterresistant clothing before you become wet.
- Wear clothing that wicks moisture away.
- Minimize wind exposure and if your clothes become wet, replace them. Avoid sweating by dressing in layers,
- rather than in a single bulky garment. Pack a sweater, warm hat, and raingear

Warning Signs

 Uncontrolled shivering, slow or slurred speech, memory lapses and incoherence, lack of coordination such as immobile or fumbling hands, stumbling, a lurching gait, drowsiness, and exhaustion.

Immediate Treatment

- Seek shelter from weather and get the victim into dry clothes.
- Give warm non-alcoholic drinks.
- Build a fire and keep victim awake. Strip victim and yourself, and get into sleeping bag making skin-to-skin contact.
- If victim is semi-conscious or worse, get professional help immediately.

Wildlife Hazards **Mountain Lions**

A glimpse of one of these magnificent cats would be a vacation highlight, but you need to take precautions to protect you and your children from an accidental encounter. Don't hike alone. Make noise to avoid surprising a lion and keep children close to you at all times. If you do encounter a lion, do not run. Talk calmly, avert your gaze, stand tall, and seems imminent, act aggressively. Do not crouch and do not turn away. Lions may be scared away by being struck with rocks or sticks, or by being kicked or hit.

Lions are primarily nocturnal, but thev have attacked in broad daylight. They rarely prey on humans, but such behavior occasionally does occur. Children and small adults are particularly vulnerable. Report all mountain lion encounters immediately!



Waterton Lakes National Park Services and Facilities

Emergency Service	es			Hospitals	Park Entrance Fees	Daily	Annual Local	Great	
Police (RCMP) Emergency	403-859-2244 or Zenith 5000 (24hrs) 403-859-2636	,	dian Mounted Police r of Waterton Ave. n Falls Drive	Pincher Creek 403-627-33 Cardston 403-653-44	Senior Child (under 6 free) Family Group Senior Group	\$4.00 \$3.00 \$2.00 \$8.00 \$6.00	\$28.00 \$21.00 \$14.00 \$50.00 \$38.00	\$35.00 \$27.00 \$18.00 \$70.00 \$53.00	
Fire	403-859-2113 or contact the Warden Office at 403-859-5140				Large Groups Separate entrance fee	\$3.00/person es are charged at Glad		in Montana	
Parks Canada	arks Canada Townsite Campground				erviced, \$15.00 to \$23.00, O		per 8		
Services & Facilities	Crandell Campground Belly River Campground	i	403-859-2224	129 semi-serviced sites, \$13 24 unserviced sites, \$10.00,			ht), Open May 1	7 to Sept. 3	
	Visitor Reception Centre		403-859-5133	Located on the right side of th village. General Park informati to June 21 - 8:00am to 8:00pn	on, fishing, backcountry inform	nation, and permits. O	pen 8:00am to 6:0	00pm, May 1	
	Wilderness Camping 403-859-5133			\$6.00/person/night (under 16 Advance reservations are av		Must register at Visit	or Center		
	Fire Wood			\$4.00/armload, at Crandell a for use in specifically designate			n park prohibited	except	
	Boat Launches			Behind the Park Administration	n Office for Waterton Lake and	adjacent to Linnet La	ake for Middle Wa	terton Lake	
	Public Tennis Court			Located one block from Main	St. on Cameon Falls Drive				
	Heritage Interpretation P	rograms		Theatre Programs - daily, 8:30pm, 1 hour, programs on a variety of topics in the Falls and Crandell Theatres International Peace Park Hike - Saturdays, 10:00am, 8 hours, See cover article for details. For further details and schedules check displays posted outside theatres and at the Visitor Reception Centre.					
Lodging	The Aspen Village Inn Bayshore Inn and Convo Crandell Mountain Lodg El Cortez Motel Historic Kilmorey Lodge Northland Lodge Prince of Wales Hotel Stanley Hotel Waterton Glacier Suites	ention Center e	1-888-859-8669 403-859-2211 403-859-2288 403-859-2366 1-888-859-8669 403-859-2353 403-859-2231 403-859-2335 403-859-2004	Centrally located cottages, so Full Service Hotel Charming Country Inn "Clean-Comfortable-Econom Lakeside Country Inn, Dining Historic, rustic lodge just sou For reservations call 403-236 on Main Street	cal" Room, Lounge, Gift Shop - th of Cameron Falls - northla	www.watertoninfo.ab indlodgecanada.com	.ca	3-859-2231	
Food & Beverage	Baby Bear Fast Food The Big Scoop Ice Crea Koffee Shop Kootenai Brown Dining Lamp Post Dining Room The Little Italian Café New Frank's Restaurant Prince of Wales Hotel Souper Sub The Waterton Bagel & C	m Parlour Rm 1	403-859-2211 403-859-2211, ext. 304 403-859-2211, ext. 305 1-888-859-8669 403-859-0003 403-859-2240 403-859-2231	,	g and patio seating e lake - 7 a.m. to 10 p.m. anadian wine menu - 7:30 a. est deck in Waterton - 7 a.m e burgers, evening Chinese a.m., lunch 11:30 a.m. to 2 p	. to 10 p.m. buffet p.m., dinner 5:30 to 9	:30 p.m.,		
Museums	Heritage Centre		403-859-2267	In the village on Waterton Ave gallery, and information. Open		atural History Associat	tion - bookstore,	exhibits art	
Scenic Boat Tours & Hiker Shuttle	Hiker Shuttle Express 403-859-2378 Waterton Inter-Nation 403-859-2362 Shoreline Cruises		Operated by Waterton Outdoor Adventures at the Tamarack Village Square Operates May to September; Interpretive tours from Waterton to Goat Haunt, within Glacier National Park, U.S.A 2 hours with 1/2 hour stop - visit Waterton Marina for details. Departs Waterton 9 and 10 a.m. and 1, 4 and 7 p.m. (summer schedule) Hiker Shuttle to Crypt trailhead. Rated a #1 hike in Canada. To Goat Haunt, Montana, for hikes to Kootena Lakes, Goat Haunt Overlook, Rainbow Falls, Lake Francis as well as other trails.						
Hiking Tours	Canadian Wilderness To Heritage Education Prog Waterton Outdoor Adve	gram	1-888-859-8669 403-859-2624 403-859-2378	Guided Hiking. Located in the Educational field trips offered Licensed National Park Guid	by the Waterton Natural His	tory Association			
Gift Shops, Stores	Akamina Clothing & Gift Bayshore Gift Shop Beargrass Boutique		403-859-2361 403-859-2240	Includes The Backroom-Antion 8 a.m. to 10 p.m. Souvenirs, toys, license proc					
	Borderline Books Caribou Clothes		403-859-2346	305 Windflower Ave. Main Street					
	Pat's Prince of Wales Gift Sho	ор	403-859-2266	Quality giftware, RV and fish 7 a.m. to 10 p.m. daily		-			
	Trail of the Great Bear O Waterton Natural Histor Association Bookstores	y	403-859-2009 403-859-2267	Authentic native crafts, maps Information - Main Street Located in the Heritage Cent				itware, trave	
Bike Rentals	Pat's		403-859-2266	Regular and suspension mod	ıntain bikes, strollers, scoote	rs			
Religious Services	All Saints Anglican Catholic Church L.D.S. United Church (Congregational, Methor	diet Prochuton	ian Union)	Episcopal Church - 11 a.m. S May 20 to Sept 2; Saturday 7 May 20 - September 2 - Sun Sunday School 11 a.m.; Sa 11 a.m. Sundays; June to Se	':30 p.m., Sunday 11 a.m. days: Primary, Young Wome crament Meeting - 11:45 a.m	•	Relief Society 10	a.m.;	
Service Stations	Pat's	. ,	403-859-2266	CAA/AAA Affiliated, gas, pro	pane, oil change and tire rep	airs. 8 a.m 11 p.m.			
Other Facilities & Services	A Central Reservation S Alpine Stables Currency Exchange & A Pat's Waterton Health Club & Recreation Centre Waterton Lakes National Public Golf Course	Service .TM	1-800-215-2395 403-859-2462 403-859-2378 403-859-2266 403-859-2151	Waterton-Glacier, Yellowstone Guided rides provide western No service fee money excha ATM cash machine, VHS vid Features an 18 metre, indoo open to the general public - a 18 hole course; pro shop; equ	e, Canadian Rockies - a Trail n adventure for the whole fan nge at the Tamarack Village eo rentals r, salt-water swimming pool, a ndmission and program fees	of the Great Bear se nily; hourly/half-day/fu Square. sauna, whirlpool, stea apply.	rvice ull day/overnight t am room, workou	ut equipment	
	Waterton Lakes Opera I			Movies					

Waterton-Glacier International Peace Park is one of the world's most significant natural areas, containing spectacular topography, active glaciers, and a unique diversity of wildlife. A remarkable variety of plants and landscapes bring the scenery to life and provide many places for visitors to enjoy colorful displays of wildflowers. These glorious floral pagents can be found in prairies, forests, bogs, alpine meadows and avalanche chutes throughout the Park. While plants contribute to the splendor of the landscape, naturalist Karen Schmidt suggests, "Plants also represent a complex universe in and of themselves, a universe we are utterly dependent upon but are only beginning to understand, a universe whose future depends on our ability and our will to uncover its secrets."



The variety of vegetation here includes grasslands, aspen parkland, mixed conifer forest, subalpine forest and alpine areas. The Peace Park is bisected by the continental divide and this results in significant climate and plant community differences. The western half experiences moderate temperatures and is generally moister, with deep snow during winter, and rain and snow during spring and fall. Continental air masses influence the climate on the eastern portion of the park, where temperatures are lower, winds are greater and there is less precipitation. At high elevations, the extreme climate has limited soil formation, and produced a unique assemblage of plant communities that have adapted to these extreme conditions. In contrast, a more moderate climate at lower elevations has allowed



growth of a forest cover that has been present for thousands of years.

This meeting and mingling of plant communities has created an unusually rich variety of plants in a relatively small area. Waterton Lakes National Park has over 970 species of plants, while Glacier's number over 1,000. The number of plant species growing here is greater than Banff, Jasper, Kootenay and Yoho National Parks to the north combined. Clearly, the Peace Park is a treasure trove for wildflower enthusiasts.

Waterton-Glacier's short growing season forces its plants to take advantage of every moment. Mountain plants have made many adaptations to cope with the seasons and to grow and reproduce in a brief span of time. Flowers often may be found pushing up their blossoms through

retreating snowbanks. Spring, summer, and fall are all compressed into shortened seasons here, making the park a constant and changing landscape of blooms.

While most of us notice attractive wildflowers, the fruits of some plants can be equally handsome and interesting. Many plants bear edible fruit, but be certain of your identification as poisonous berries are also found here. Remember that birds, bears, and other wildlife need fruits and berries to survive. Don't take more than a handful.

Native plants in Waterton-Glacier International Peace Park are a valuable, natural heritage treasured by the public, and preserved for future generations. They inspire us to increase our awareness of how we can better care for both the places we visit, and those we live in.

Keeping the Wild in Wildlife

Prairie, northern and southern Rocky Mountain, and west coast plants all overlap here. Add to this mix the effects of natural processes such as fire, floods, and avalanches and you end up with a complex, varied landscape which provides homes for many animals.

It is also a meeting place for visitors from around the world! As a visitor to this habitat, take the time to learn about the wildlife and respect their need for the space they require to live undisturbed. Although some animals may spend part of their year close to roads and developed areas where they are easy to observe, enjoy them at a distance. While some animals may appear to tolerate people. Approaching too close can cause them stress and disturb them from feeding areas or travel routes

We recommend you keep at least three bus lengths (100 ft/30 metres) away from large animals and a minimum of three times that distance from bears. Use binoculars or a telephoto lens to improve your view. Keep the animal's line of travel or escape route clear. If wildlife

approaches you, move away. "Animal jams" occur when large numbers of people stop to view wildlife from the road. In their excitement, many folks forget they need to be aware not only of safety concerns related to wild animals, but also traffic hazards. Slow down and pull over safely. Both wildlife and people, particularly children, may suddenly run onto the road. Remain in your vehicle, safe from both wildlife and traffic and move on in a short time so others can watch. If a jam occurs close to an animal, or on a hill, curve or in heavy traffic, you may be asked to move on.

Never feed park wildlife. Feeding wildlife (either directly or indirectly by leaving garbage or food out where they can find it) or approaching animals too closely, causes them to lose their fear of people. Once habituated, these animals often become increasingly aggressive. Because they are still wild, they remain unpredictable, and may strike out with antlers, horns, teeth, hooves, or claws without warning. Your individual close interaction with wildlife may be a positive experience, but you may be setting someone else up for injury. In 1999, after campers fed a deer, a 4-year old girl was attacked and injured when she simply walked by the deer later without offering food.

If you entice or feed an animal you may also share responsibility for its death. Animals may be hit by cars if they begin to hang around parking lots and roads. Habituated animals often have to be removed or killed.

Animal jams and habituated wildlife are serious problems. Please heed the advice of park staff who may be handling these situations.

How can you help? Check out special pamphlets, exhibits and programs which explain the problem further, or ask park staff. Enjoy wildlife from a distance, and let others know about the problem. We all share responsibility to keep these national parks healthy and wild.

Beating the Odds Increase your Chances of Observing Wildlife

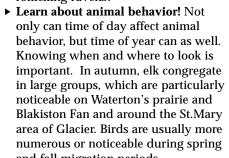
- ► Look at dusk and dawn! Animals tend to be more active at those times. Note: Hiking alone or after dark is not recommended in bear country
- ▶ Look in a variety of habitats! One of Waterton-Glacier's most remarkable features is the diversity of habitats it offers. You will see different birds and animals in the moist cedar-hemlock forest than in the sunny thickets and shrubs alongside aspen forests. Don't overlook rivers and marshes. Water is a magnet for wildife
- ▶ Stop and walk a trail! Spend some time away from the main roads. Both parks offer fine short walks that can be rewarding to wildlife watchers.
- ► Look in unusual places! Have you ever gone fish viewing? Have you spent some time watching the antics of

ground squirrels or chipmunks? Have you looked up for gliding eagles or rollicking ravens?

- ► Learn about animal behavior! Not only can time of day affect animal behavior, but time of year can as well. Knowing when and where to look is important. In autumn, elk congregate noticeable on Waterton's prairie and Blakiston Fan and around the St.Mary area of Glacier. Birds are usually more and fall migration periods.
- Ask park staff about recent sightings! Wardens and rangers throughout the park will be happy to point out locations where particular animals are likely to be found.

Whether bears, mountain lions, squirrels, or any other species, all park wildlife can present a very real and painful threat, especially females with young. Always enjoy wildlife from the safety of your car or from a safe distance. Feeding, harassing, or molesting wildlife is strictly prohibited and subject to fine.







Flora and Fauna

Species at Risk

Pandas and whooping cranes - these animals have made us aware that threats to the existence of many plants and animals are a global issue. Nevertheless, many people would be surprised to hear that this is a concern even in protected areas like Waterton-Glacier International Peace Park. Both national parks have species considered to be 'at risk.' While details, and legal status, vary between Canada, the U.S.A., provinces, and states, a species at risk is usually categorized as either:

- · of special concern particularly sensitive to human activities or natural events (or, there isn't enough data to determine their exact status);
- threatened likely to become endangered if factors impacting it are not reversed:
- · endangered facing imminent extirpation or extinction.

All species of animals and plants are eligible for listing. In the U.S.A., the groups with the most listed species are (in order) plants, birds, and fishes. As of January 2001, there were 1,244 species listed in the U.S. (736 plants, 508 ani-



Visitor Reception Centre and Linnet Lake. As the salamanders approach the road, the fences will direct them into small, pit-fall traps. Trapped salamanders will be carefully collected and carried across the road. By selectively marking individuals, a population estimate will be

obtained and compared to the population

estimate of 3,300 to 4,700 salamanders

Parks Canada recently amended its

mandate to confirm that the long-term,

healthy functioning of ecosystems is the

first priority of park management. All

visitors, residents and staff can help to

that are integral to our national parks.

Lake long-toed salamanders will ensure

these mysterious, unassuming creatures

that any future visitor may encounter

venturing silently through our short

stretch of common territory.

Long-toed Salamander

Our 2001 efforts to protect the Linnet

protect the natural features and processes

centimetres long and weighing just six grams, long-toed salamanders are not as easily noticed as the bears most visitors hope to spot, but they are no less fascinating. They are brown in colour, with a vivid orange stripe down the length of their slender body. They are named for the especially long fourth toes on their hind feet, and live in and around lakes and ponds throughout the Peace Park. Every spring and summer, Waterton's

Salamander Patrol

As you approach the village of Waterton

long-toed salamander territory. Thirteen

Park, you pass through important

Linnet Lake salamander population traverses the busy Entrance Parkway while migrating between the lake (where they breed) and their upland habitat. Witnessing an intent individual on its way to or from the lake is a unique experience. An observer can only attempt to comprehend the instinct that propels these remarkable amphibians along such a journey.

The Government of Alberta recently listed long-toed salamanders as a species of special concern due to indications that they may be declining, the isolation of many breeding populations, and the lack of related data. The protection offered by Waterton Lakes National Park hasn't completely eliminated the risks to the Linnet Lake population. Traffic through their movement corridor has increased in recent years, and large numbers of migrating salamanders are killed by drivers unaware of their presence.

To reduce the loss of these long-toed salamanders, Parks Canada staff and volunteers are lending our salamander friends a hand during their 2001 migrations. Low fences have been erected parallel to the parkway between the

mals). In Canada, as of May 2001, there were 380 species at risk listed, up by 16 species from last year. The ultimate goal is to reverse the decline of these species so that they no longer need protection. A species population disappears when

all of its members either die or leave and are not replaced by the birth or immigration of new members. When a local population disappears, it is called `extirpation'. An extirpated population takes with it some of the genetic diversity of the species to which it belongs, including any special adaptations evolved to cope with the local environment. As well, the community in which it lived changes. If enough populations disappear, or if a key species is lost, the entire community may become greatly simplified or may even "collapse". For example, if a type of tree disappears, any insects that depended on those trees for food, any birds and mammals that lived in those trees, and any plants that grew only in the shade of those trees may disappear as well.

As populations of a particular species become extirpated, the species as a whole may become endangered. When the last remaining population disappears, the species is extinct.

In November 1999, the Government of Canada approved a strategy for the protection of its species at risk. Parks Canada is working with other federal and provincial agencies to prepare recovery strategies for threatened and endangered species, particularly those found mainly within national parks. The program will focus primarily on species which are listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as endangered or threatened Our secondary focus will be on species of special concern' listed by COSEWIC, species listed by provincial agencies, and those tracked by conservation data

While there are no threatened or endangered species living in Waterton Lakes National Park, we do have a number of species of special concern. For

example, Bolander's quillwort (Isoetes bolanderi) is listed by COSEWIC as a species of concern. This remarkable but inconspicuous plant grows in shallow water in ponds and along lake edges. Although it can be found from southern Alberta to California, Arizona and New Mexico, it is only known in Canada from a few locations, including one site in Waterton. Other examples of species of special concern in Waterton are the bull trout, the wolverine and the long-toed

salamander (see article below.) In the United States, the national **Endangered Species Program works to** conserve and restore endangered and threatened species and the ecosystems upon which they depend. All federal agencies have responsibility to protect species and preserve their habitats, but the U.S. Fish & Wildlife Service and

National Marine Fisheries Service share the lead role. Glacier National Park follows this program when managing their threatened wildlife. Five species at risk listed in the United States are found in Glacier. They are grizzly bear, bald eagle, gray wolf, bull trout and lynx.

Much of the progress in recovery of endangered species can be credited to public support and involvement. There are many voluntary actions which can help protect threatened species - from monitoring and conserving wildlife species and their habitat, to protecting and improving the quality of soil, water, air and other natural resources. These actions, particularly those that help maintain the habitats animals need to survive, are essential to the recovery of species at risk, and to the prevention of other species from becoming at risk in the first place.



Missing Lynx?

The lynx (Lynx canadensis) is a close cousin to the bobcat. While the bobcat is found in a variety of habitats, the lynx is a specialist of high elevation and northern forests. Lynx need enough mature and old growth forests to provide cover for their kittens and dens, and enough new vegetation to provide food for the snowshoe hare, their main food. This type of habitat is found in Waterton-Glacier International Peace Park, and so is the lynx.

Early sightings and anecdotal information of the distribution and relative population status of forest carnivores in Glacier were described in Wild Animals of Glacier National Park written in 1918. At the time, lynx were considered "more or less common throughout the Glacier Park region." In 1895, lynx tracks were seen at St. Mary Lake and one animal was caught in a trap near timberline just north of the lake.

Documented sightings have declined since the late 1960's, with a slight increase in sightings in recent years. Systematic lynx surveys involving snow tracking and DNA sampling were initiated in 1994 and 1999, respectively. Lynx were detected in many valleys. No estimates of population numbers have been made, but at least 5 and as many as 8, individual lynx were identified by DNA analysis during sampling in 2000.

On April 24, 2000, the Canada lynx was listed as a threatened species in the coterminous United States. The U.S. Fish and Wildlife Service concluded that the population was threatened by human alteration of forests, low numbers as a result of past overexploitation, expansion of competitors and elevated levels of human access into lynx habitat. The lynx is not considered to be at risk in Canada.

Concurrent with the listing process in the U. S., an interagency Canada Lynx Conservation Assessment and Strategy was developed to provide a consistent and effective approach to the conservation of the species. The strategy identifies 17 risk factors the could adversely affect lynx mortality, productivity and movements. In Glacier, the primary risk factors are:

- · fire management policies that preclude
- natural disturbance processes; • roads and highways;
- · winter recreation trails;
- · habitat degradation by invasive nonnative plant species;
- incidental or illegal shooting or trapping; influence by human activities on
- competition or predation;
- · human developments that degrade or fragment lynx habitat.

Glacier considers the recommendations in this strategy prior to undertaking any new activities in lynx habitat.

Poaching in and around national parks is at an all time high. In Glacier, if you observe suspicious behavior, contact a ranger or call 406-888-7801. In Waterton, call 403-859-2636 or contact a warden. Try to get an accurate description of individuals or vehicles, but don't approach anyone engaged in criminal activity.